



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,418	12/31/2003	Martin Theriault	Serie 6389	4643

7590

11/03/2005

Linda Russell
Air Liquide
Suite 1800
2700 Post Oak Boulevard
Houston, TX 77056

EXAMINER

LU, JIPING

ART UNIT	PAPER NUMBER
----------	--------------

3749

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,418

Applicant(s)

THERIAULT, MARTIN

Examiner

Jiping Lu

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 9, 11, 12, 14, 15, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,221,163 to Roberson, Jr. et al.

3. Regarding claims 1, 9, 15, and 19, Roberson, Jr. et al. teach a transportable (col. 1, ln. 17) apparatus and method of its use comprising cabinet 12 having an enclosed interior space (col. 4, ln. 15 and Figure 1a), a desiccator 20 to form a dry air stream (col. 4, ln. 33-35), means to receive a supply of compressed air (col. 4, ln. 18-20), and means to direct the dry gas stream from desiccator 20 to the interior of cabinet 12 to maintain a low humidity environment in the interior space (col. 5, ln. 18-28). Regarding claims 11 and 20, cabinet 12 is mounted to the base housing desiccator 20 (col. 4, ln. 15-17). It is deemed that the term “mounted” meets the claimed limitation of “integral” since it has been held that the term “integral” is sufficiently broad to embrace constructions united by such means as fastening and welding. *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973). Regarding claim 12, flow control valve 21 varies the volume of the dry gas stream entering cabinet 12 (col. 4, ln. 45-49). Regarding claim 14, filter 42 removes particulates from the air stream (col. 5, ln. 3-6). Regarding claim 18, the humidity of the interior is maintained at 0.1% (col. 5, ln. 23-25).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberson, Jr et al. as applied to claims 1 and 15 above, and further in view of US Patent 6,615,908 to Boshier et al.

6. Regarding claims 2 and 10, Roberson, Jr. et al. teach a source of compressed nitrogen (col. 4, ln. 18-23) and supplying compressed nitrogen to desiccator 20 (col. 4, ln. 18-20), but Roberson, Jr. et al. does not teach generating the nitrogen. Boshier et al. teach a system and method of its use similar to that taught by Roberson, Jr. et al. comprising supplying nitrogen (col. 12, ln. 20) and utilizing desiccant elements (col. 13, ln. 65- col. 4, ln. 2) for controlling the humidity within a cabinet (col. 4, ln. 7-8; col. 12, ln. 1-2) that can be used to store "items requiring a controlled temperature" (col. 1, ln. 39-40). In addition to having these characteristics in common with the apparatus and method taught by Roberson, Jr. et al., Boshier et al. furthermore teach generating the nitrogen that is supplied to the cabinet (col. 13, ln. 27-34). Regarding claims 7 and 8, Boshier et al. teach utilizing either a hollow fiber membrane or pressure swing adsorption system nitrogen generator (col. 13, ln. 33-34). As Boshier et al. teach having a nitrogen generator in communication with a cabinet is an effective option to control the atmosphere of the cabinet (col. 13, ln. 27-34), it would have been obvious to one of ordinary skill

Art Unit: 3749

in the art to modify the nitrogen supply of Roberson, Jr. et al. with the nitrogen generator of Boshier et al. Regarding claim 6, Boshier et al. do not teach a plurality of membranes. However, such a modification would have been obvious to one of ordinary skill in the art since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

7. Claims 3-5, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberson, Jr. et al. in view of Boshier et al., as applied to claims 2 and 15 above, and further in view of US Patent 5,439,507 to Barbe et al.

8. Boshier et al. are silent as to details about the membrane nitrogen generator (col. 13, ln. 33-34) used in their apparatus. Regarding claims 3, 16, and 17, Barbe et al. teach that a membrane nitrogen generator utilizes a membrane to separate air and form a dry nitrogen gas stream from a source of compressed gas (col. 3, ln. 3-22). Regarding claims 4 and 5, Barbe et al. teach that a hollow fiber membrane nitrogen generator is generally formed from a polymeric material (col. 9, ln. 66-68). As Boshier et al. are silent as to details about the membrane nitrogen generator (col. 13, ln. 33-34) used in their apparatus, but Barbe et al. teach that the limitations of claims 3-5, 16, and 17 are typical characteristics of a hollow fiber membrane nitrogen generator, it would have been obvious to one of ordinary skill in the art to use a membrane nitrogen generator having the limitations taught by Barbe et al. as the membrane nitrogen generator taught by Boshier et al.

Allowable Subject Matter

9. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 8/17/2005 have been fully considered but they are not persuasive. First broad claims fail to structurally define over the prior art references. Broad claim 1 merely contains alternative elements, e.g. means to receive compressed air or N₂ and means to direct gas stream or N₂. The Roberson patent does show means 15 (Fig. 11) to receive N₂ and means to direct gas stream (col. 5, line 18-29). The applicant may wish to delete the words "or" from broad claim 1. Second, the applicant argues that the Boshier patent is non-analogous art. The examiner disagrees. In response to applicant's argument that Boshier is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, in view of the broad claims presented, it is the examiner's position that any art relating to humidity is analogous. Broad claims merely recite means to receive compressed air or N₂ and means to direct gas stream or N₂. Therefore any art relating to humidity would be relevant to the broadly claimed subject matter. Boshier et al. teach a concept of supplying of nitrogen and using of desiccant elements for controlling the humidity within a cabinet that can be used to store "items

Art Unit: 3749

requiring a controlled temperature”. Therefore, in view of the combined teachings of the references, one skilled in the art would be able to derive the broadly claimed invention.

Conclusion

11. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

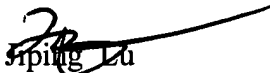
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, EHUD GARTENBERG can be reached on 571 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3749

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jiping Lu
Primary Examiner
Art Unit 3749

J. L.